

Claims

1. A device for controlling a braking of a vehicle having front and rear wheels, a braking system generating braking forces on the respective wheels, at least one sensor monitoring an operational condition of the vehicle including a detector detecting an amount of a braking action by a driver of the vehicle, and the device executing a braking force distribution control in which braking force on the rear wheels is lowered in comparison with braking force on the front wheels when an operational condition monitored by a sensor among the at least one sensor stratifies a predetermined condition, characterized in that braking force on the front wheels during execution of the braking force distribution control is increased, where a braking force increment on the front wheel beyond braking force corresponding to the braking action is determined based upon an increment of the braking action by the driver detected by the detector; and when anti-skid control for either of the wheels is executed, the braking force increment on the front wheel is decreased.

2. A device of claim 1, characterized in that braking force on the rear wheels is increased when the anti-skid control is executed.

3. A device of claim 1, characterized in that the braking force increment on the front wheel is decreased until the increment reaches to zero.

4. A device of claim 1, characterized in that the decreasing of the braking force increment on the front wheel is interrupted if the anti-skid control is terminated but the increment does not reach to zero.

5. A device of claim 1, wherein the braking system comprises a hydraulic circuit connected with a master cylinder and braking force generating apparatus including wheel cylinders provided for the respective wheels; and the braking action is reflected in a pressure in the master cylinder, characterized in that the decreasing of the braking force increment is executed by decreasing braking pressures in the front wheel cylinders.

6. A device of claim 2, wherein the hydraulic circuit comprises a hydraulic circuit connected with a master cylinder and braking force generating apparatus including wheel cylinders provided for the respective wheels; the braking action is reflected in a pressure in the master cylinder; and valves selectively allowing fluid communication between the master cylinder and the rear wheel cylinders, characterized in that the increasing of the rear wheel braking force is executed by opening the valves.

7. A device of claim 5, wherein the hydraulic circuit comprises at least a common line applying at least one of the front wheel cylinders and at least one of the rear wheel cylinders, and at least a pressure regulating valve in the common line regulating a pressure in the common line and selectively fluidly connecting the common line to master cylinder.

8. A device of claim 7, wherein the hydraulic circuit is of cross dual circuit type.

9. A device of claim 7, wherein the hydraulic circuit is of front-rear dual circuit type.

10. A device of claim 7, wherein the hydraulic circuit comprises valves selectively allowing fluid communication between the common line and the rear wheel cylinders, characterized in that the increasing of the rear wheel braking force is executed by opening the valves.

11. A device of claim 6, wherein the opening of the valves is executed intermittently.

12. A device for controlling a braking of a vehicle having front and rear wheels, a braking system generating braking forces on the respective wheels, at least one sensor monitoring an operational condition of the vehicle including a detector detecting an amount of a braking action by a driver of the vehicle, the device executing a braking force distribution control in which braking force on the rear wheels is lowered in comparison with braking force on the front wheels when an operational condition monitored by a sensor among the at least one sensor stratifies a predetermined condition for starting the braking force distribution control, characterized in that braking

force on the front wheels during execution of the braking force distribution control is increased during execution of the braking force distribution control, but decreased when anti-skid control for either of the wheels is executed or when an operational condition monitored by the sensor stratifies a predetermined condition for terminating the braking force distribution control.

13. A device of claim 12, wherein a rate of decreasing the front wheel braking force when an operational condition monitored by a sensor among the at least one sensor stratifies a predetermined condition for terminating the braking force distribution control is faster than a rate of decreasing the front wheel braking force when anti-skid control for either of the wheels is executed.

14 A device of claim 12, wherein the braking force on the front wheel is decreased until the braking force reaches to braking force requested by the braking action by the driver.

15. A device of claim 12, wherein the increase of the braking force on the rear wheels is restricted during execution of the braking force distribution control but allowed when anti-skid control for either of the wheels is executed or when an operational condition monitored by a sensor among the at least one sensor stratifies a predetermined condition for terminating the braking force distribution control.